

WHAT IS CLAIMED IS:

1. A method for screening a compound for stimulation or inhibition of PTH-rP production in mammalian cells comprising the steps of:

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- (i) providing an expression construct comprising a PTH-rP promoter and a reporter gene, wherein said reporter gene is under transcriptional control of said promoter;
 - (ii) transfecting said mammalian cells with said expression construct;
 - (iii) contacting said transfected cell with said compound; and
 - 10 (iv) identifying a compound that alters expression of said reporter gene from said promoter.

2. The method of claim 1, wherein said compound inhibits PTH-rP production in mammalian cells.

15 3. The method of claim 1, wherein said compound stimulates PTH-rP production in mammalian cells.

4. The method of claim 1, wherein said reporter gene is selected from the group consisting of firefly luciferase, chloramphenicol acetyl transferase, β -galactosidase, green fluorescent protein, human growth hormone, alkaline phosphatase and β -glucuronidase.

20 5. The method of claim 4, wherein said reporter gene is firefly luciferase.

6. The method of claim 1, wherein said promoter for PTH-rP is cloned from genomic DNA.

25 7. The method of claim 6, wherein said promoter has the sequence of SEQ ID NO:1.

8. The method of claim 1, wherein said expression construct is the plasmid pGL3B-PTH-rP 1.1.

9. The method of claim 1, wherein said mammalian cells are human cells.

10. The method of claim 9, wherein said human cells are tumor cells.

11. The method of claim 10, wherein said tumor cells are breast cancer cells.

12. The method of claim 11, wherein said breast cancer cells are MDA-MB-231 cells.

13. The method of claim 10, wherein said tumor cells are lung cancer cells.

14. The method of claim 13, wherein said lung cancer cells are RWGT2 cells.

15. The method of claim 9, wherein said human cells are bone cells.

16. The method of claim 15, wherein said bone cells are selected from the group consisting of MC3T3-E1, MG-63, U2OS, UMR-106, ROS17/2.8 and SAOS-2.

17. A compound that alters PTH-rP production in mammalian cells identified by the method comprising the steps of:

(i) providing an expression construct comprising a PTH-rP promoter and a reporter gene, wherein said reporter gene is under transcriptional control of said promoter;

(ii) transfecting said mammalian cells with said expression construct;

(iii) contacting said transfected cell with said compound; and

(iv) identifying a compound that alters expression of said reporter gene from said promoter.

18. The compound of claim 17, wherein said compound is identified from a small molecule chemical library.

19. The compound of claim 17, wherein said compound is identified from a peptide library.

20. The compound of claim 17, wherein said compound is identified from a collection of natural products.

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21. The compound of claim 18, wherein said compound inhibits production of PTH-rP in mammalian cells.

22. The compound of claim 21, wherein said compound is OSW3 or OSW6.

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23. The compound of claim 18, wherein said compound stimulates production of PTH-rP in mammalian cells.

24. The compound of claim 23, wherein said compound is OSWs1.

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25. A method of regulating PTH-rP production in mammalian cells comprising the steps of:

- (i) identifying a compound that alters PTH-rP activity; and
- (ii) contacting said cell with said compound.

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26. The method of claim 25, wherein said compound inhibits production of PTH-rP in mammalian cells.

27. The method of claim 26, wherein said compound is OSW3 or OSW6.

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28. The method of claim 25, wherein said compound stimulates production of PTH-rP in mammalian cells.

29. The method of claim 28, wherein said compound is OSWs1.